

remnant of a vertebral column are a number of impressions of polygonal angular scutes, best seen in the London half of the specimen, three of which are represented in Pl. I. fig. 4, magnified three diameters, and which display the imprint of a characteristic ornament, namely of finely tuberculated ridges radiating from the centre of each plate.

It is difficult to give any opinion as to the true zoological position of this remarkable fish-fragment, though desirable to name and record it, in the hope that additional specimens may at a future time turn up to throw more light on its nature. Meanwhile the specimen is interesting as showing the oldest vertebral centra as yet known. It is also of special interest to geologists to know that the genus apparently existed also in Upper Silurian times, as Mr. Smith Woodward recently kindly showed me a portion of Ludlow "Bone Bed" (T. T. Lewis Coll. Brit. Mus. P. 8929) on which a little scute is seen which, generically at least, cannot be distinguished from the scutes of the Farnell specimen, the principal difference being that the latter are squeezed quite flat, while the Ludlow specimen is elevated in the centre.

I must here also thank Dr. Woodward and Mr. Smith Woodward for their kindness in allowing me to make use of the specimens in the British Museum.

EXPLANATION OF PLATE I.

Fig. 1. *Psammosteus anglicus*, Traq., natural size.

Fig. 2. Impression of sculpture of outer surface of the same plate, magnified five diameters.

Fig. 3. *Protodus scoticus* (E. T. Newton), magnified three diameters.

Fig. 4. Impressions of outer surfaces of three of the scutes of *Farnellia tuberculata*, Traq.

X.—*Descriptions of new Species of Butterflies from South America.* By H. GROSE-SMITH, B.A., F.E.S., F.Z.S., &c.

Heliconius molina.

Male.—*Upperside.* Both wings brownish black, suffused with shining dark blue. Anterior wings with an oblique crimson band at the end of the cell, which it partially invades, crossing the middle of the disk to a little below the lowest median nervule, on which it is rather widest. Posterior wings with the costal margin broadly pale cinereous brown.

Underside. Both wings dark brown. Anterior wings with

the band dull rufous and intersected by three irregular bands of brown scales between the veins; the area below the lowest median nervule and median nervure to the inner margin pale cinereous brown. On the posterior wings is a faint indication of a broad paler band crossing the disk horizontally a little before the middle.

Exp. of wings $2\frac{1}{4}$ inches.

Hab. Valdivia, Colombia (*Pratt*).

Nearest to *H. cyrbia*, Godt., and *H. cythera*, Hew., but on the posterior wings without the white outer margin and with only a faint indication of the middle pale band.

Adelpha juanna.

Male.—*Upperside.* Both wings crossed by brown bands as in *A. leuceria*, Druce, but wider throughout. On the anterior wings the inner branch of the brown band, where it becomes bifid towards the costa, is much wider, being of equal width with the lower part of the band, and the brown spots in the outer branch are smaller and do not curve inwardly. The posterior wings are more convex on the outer margin.

On the *underside* differences occur similar to those on the *upperside*.

Exp. of wings $2\frac{1}{4}$ inches.

Hab. Valdivia, Colombia (*Pratt*).

It is very close to *A. leuceria*, but a larger insect.

Adelpha nahua.

Male.—*Upperside.* Both wings resemble those of *A. cythera*, Linn., but on the posterior wings the discal white band is bordered outwardly by a very broad fulvous band which crosses the disk from the costal margin before the apex to the anal angle; the white band is narrower and terminates more acutely and further above the anal angle than in *A. cythera*. On the *underside* of the posterior wings the fulvous area outside the white discal band is brighter and less distinctly traversed by the irregular dark band on *A. cythera*, there being only an indistinct indication of it; the submarginal row of white lunules is almost obsolete.

Exp. of wings $1\frac{1}{2}$ inch.

Hab. Merida.

Symmachia miron.

Male.—*Upperside.* Anterior wings resemble those of *S. jugurtha*, Stgr., but the yellow semihyaline space beyond the black

bar at the end of the cell is widest on the costal margin, instead of being narrowest, beyond which are five semihyaline elongate white spots on the disk, the uppermost and lowest of which are minute; the orange-rufous bar on the inner margin is wider and more elongate. The posterior wings are orange-rufous, bordered all round rather narrowly by black.

Underside.—Anterior wings as on the upperside, except that the inner marginal rufous band is represented by a pale buff streak. Posterior wings black, with a triangular spot near the base of the cell; two subcostal spots on the disk, another elongate spot at the end of the cell; a broad, more elongate streak near the inner margin, reaching to the base; two spots above the anal angle; an elongate bar across the median nervules before the margin, and a minute subapical spot, all of which are shining pale stramineous; palpi black, front of the head between the eyes orange-rufous; thorax and abdomen black in the middle, bordered by orange-rufous, with stramineous rings underneath.

Exp. of wings $1\frac{1}{2}$ inch.

Hab. Ecuador (*Buckley*).

A very remarkable insect; on the underside it is nearest to *S. accusatrix*, Westwood.

Lucilla astra.

Male.—*Upperside*. Anterior wings dark shining blue, with the middle of the disk crossed by a broad, oblique, suboval crimson band, which extends into the outer part of the cell and below the lowest median nervule. Posterior wings rather paler shining blue, with seven elongate, triangular, pale greyish-blue streaks on the disk between the veins, those in the middle the most elongate and gradually becoming shorter towards the apex; the bases of these streaks do not quite reach the outer margin.

Underside dull bluish black; the band on the anterior wings is coloured orange; on the posterior wings the pale blue streaks of the upperside are steel-blue, become linear, and extend as far as the cell, towards the end of which is a short steel-blue marking.

Exp. of wings $1\frac{1}{2}$ inch.

Hab. Colombia (*Pratt*).

Nearest to *Lucilla camissa*, Hew., but quite distinct.

Aricoris Buckleyi.

Male.—*Upperside*. Both wings dark blue, except the apex of the anterior and the costal margin of the posterior wings, which are rather broadly black.

Underside. Both wings bronzy brown. Anterior wings with a pale streak extending along the basal two thirds of the cell, and a basal diffused orange patch below the cell; four submarginal conical white spots on the disk between the veins, the lowest of which near the outer angle is bifid. Posterior wings with three basal orange streaks, one on the costal margin the shortest, the second in the cell and extending a little beyond it, the third the longest, in the interspace between the lowest median nervule and submedian nervure; five submarginal conical white spots on the disk between the veins, of which that nearest the anal angle is bifid and the most elongate.

Female.—*Upperside* bronzy brown. Anterior wings with the disk crossed beyond the cell by a broad oblique orange band, extending from near the middle of the costa, which it does not quite reach, and where it is rather paler, to the lowest median nervule, but not reaching the outer margin; the outer edge of the band is rather sinuate.

The *underside* is paler bronzy brown. On the anterior wings the band is pale tawny, and towards the outer angle is an indication of the bifid conical spot in that position on the underside of the anterior wings of the male. Posterior wings with a submarginal row of white conical spots as in the male, but much less distinct.

Exp. of wings, ♂ $1\frac{3}{4}$, ♀ 2 inches.

Hab. Ecuador (*Buckley*).

Nearest to *A. velutina*, Bates.

XI.—*Description of a new Genus of Aglyphous Colubrine Snakes from Sumatra.* By G. A. BOULENGER, F.R.S.

IGUANOGNATHUS.

Maxillary, palatal, and mandibular teeth with spatulate crowns ribbed along the outer side, subequal in size, 23 in each maxillary. Head small, slightly distinct from neck; eye rather small, with round pupil; nostril directed upwards, pierced between two nasals; no loreal. Body cylindrical; scales smooth, in 19 rows, without apical pits; ventrals rounded. Tail moderate; subcaudals in two rows. Posterior præcaudal vertebræ without hypapophyses.

This genus is founded on a most remarkable snake, the dentition of which is unparalleled among the Ophidia. For the unique specimen, stated to be from Sumatra, I am indebted to Dr. F. Werner, of Vienna, whose name I have great pleasure in connecting with the discovery of so interesting a new type.